

**Compositions and Methods for Use Thereof in Modifying the Genomes of
Microorganisms**

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Abstract of the Disclosure

The present invention relates to bacterial luciferase transposon cassettes suitable for conferring bioluminescence properties on a Gram-positive bacteria, Gram-negative bacteria, and other organisms of interest. The invention further includes cells 10 transformed with vectors carrying the transposon cassettes, cells whose genomes have been modified by introduction of such cassettes, and methods of making and using such transposon cassettes, transposon cassette vectors, and cells containing the transposons.

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